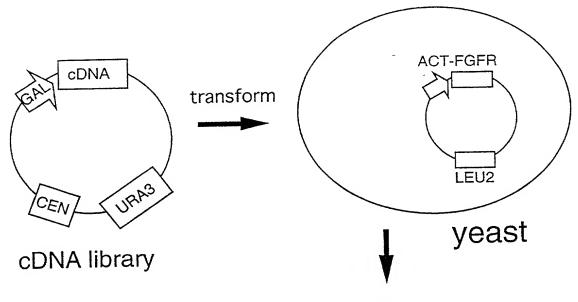
Title: Isolated FGF Receptor Inventors: Marc W. Kirschner



select URA+ LEU+ on glucose plates E: 150,000; X: 25.000 transformants

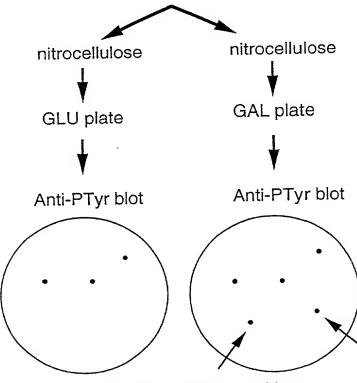


Figure 1A

Identify Gal specific positives
E: 65; X: 29 colonies

Title: Iso Inventors: M

Isolated FGF Receptor Marc W. Kirschner

Figure 1B

Gal specific positives

E: 65 colonies

X: 29 colonies

-

Repeat of screen with aniti-PTyr

E: 9 colonies

X: 2 colonies



Rescue plasmid DNA



Retransformation into a yeast strain not expressing FGFR



Is activation of P-Tyr by plasmid FGFR dependent?

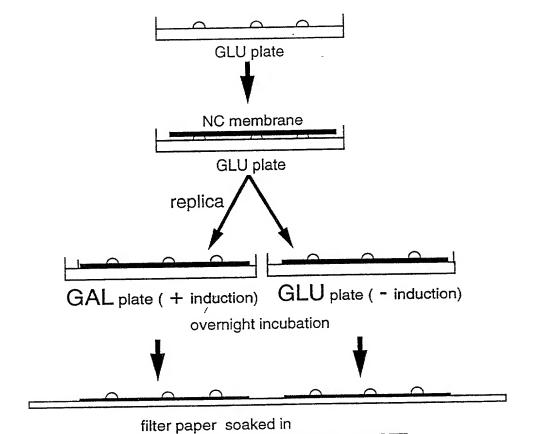
FGFR dependent P-Tyr:

E: 8 genes, X: 2 genes

FGFR independent P-Tyr:

E: 1 gene, X: 0

Docket No.: 0725.1039-009
Title: Isolated FGF Receptor
Inventors: Marc W. Kirschner



0.1 % SDS , 0.2 N NaOH, 35 mM DTT 30 min

Figure 2

Docket No.: Title:

0725.1039-009 Isolated FGF Receptor Marc W. Kirschner Inventors:

ALP CDNA						
ACCAAAAGAA	CGACAGAACG	AAGGAAAGAC	AGAGACAGTC	CTTGTTTTAA	GACTCCAGGG	60
GAATTTACGT	CTAATAAAGA	GAAGAGAGGC	ATTGTATGCT	TGACATTATG	GTGGCAGTTT	120
TATCTTCTCT	GTTGACAATT	TGCATTATCC	TCAGCTTTTC	TCTCCCATCC	GATACCCAGA	180
ATATCAATGC	CTTTATGGAA	AAGCACATTG	TTAAGGAAGG	AGCTGAAACA	AACTGCAACC	240
AAACCATCAA	AGACAGAAAC	ATCCGGTTTA	AAAACAACTG	CAAATTCCGC	AACACCTTTA	300
TTCATGATAC	CAATGGTAAA	AAGGTGAAGG	AGATGTGCGC	TGGGATTGTC	AAATCTACCT	360
TTGTGATCAG	CAAGGAACTG	CTGCCTCTCA	CTGACTGCTT	GTTGATGGGA	CGTACTGCAA	420
GACCCCCAAA	TTGTGCTTAT	AATCAAACAA	GAACAACTGG	GGTCATTAAT	ATCACTTGTG	480
AAAACAATTA	CCCTGTGCAC	TTTGCTGGGT	ACAAATCAAG	CTTCTGTGCT	TCATATTCTC	540
CATGTGCCTT	AATAGTAATA	ACTGTTTTCC	TGCTCAGCCA	GCTACTGCTC	CCTGCTATGA	600
GATGATGCCC	AGAAACGGGA	GTATCAATAG	CTAAAACTAG	AAGGACTGAT	AGTGATGGAT	660
GATTGTTCCT	AAGTCATTTA	GAGATCTACC	TGTGTTCACT	TCCAAACAAA	GAAGACATAG	720
GTATAATTGA	ATCAACCGTG	ACATAGACTG	ACTTCTAAAT	AATAAAAGCA	ACATTTTCTG	780
TTTTAACAAA	ААААААААА	АААААААА				809

Figure 3

Title: Inventors: Isolated FGF Receptor Marc W. Kirschner

ALP MLDIMVAVLSSLLTICIILSFSLPSDTQNINAFMEKHIV KEGAETNCNQTIKDRNIRFKNNCKFRNTFIHDTNGKKVK EMCAGIVKSTFVISKELLPLTDCLLMGRTARPPNCAYNQ TRTTGVINITCENNYPVHFAGYKSSFCASYSPCALIVIT VFLLSQLLLPAMR

Figure 4

Docket No.:

0725.1039-009

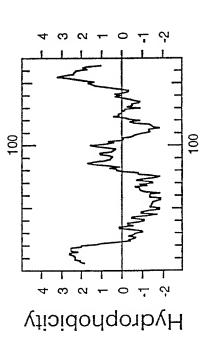
Title: Inventors: Isolated FGF Receptor

Marc W. Kirschner

VQPSLGKESAAMK FERQHMDSTVATSSSPTYCNQMMKRRNMTQGQE MLDIMVAVLSSLLTICIILSFSLPSDTQNINAFMEKHIVKEGAETN----CNQTIKDRNIRFKNN AQDDYRYIHFLTQHYDAKPKGRNDE-YCFNMMKNRRTRP---

CKPVNTFVHESLAD-VHÅVCSQENVKCKNGKSNCYKSHSALHITBÇRLKGNAKYP-NCDY-ÕTSQH CKFRNTFIHDTNGKKVKEMCAGI-VKSTFVISKEL----LPLTDCLLMGRTARPPNCAYNQTRT-CKDRNTFIHG NKNDIKAICEDRN-GQPYRGDLRI-SKSEFQITICKHKGGSSRPP-CRYGATED-

Chinese Hamster pancreatic RNase (32.3%) bovine anglogenin (28.8%) Xenopus ALP TGVINITCENN--YPVHFAGYKSSFCASYSPCALIVITVFLLSQLLLPAMR SRVIVVGCENG--LPVHFDESFITRPH QKHIIVACEGNPFVPVHFDATV



Docket No.: 0725.1039-009
Title: Isolated FGF Receptor
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					Ŧ	
CLP CDNA ATTTACCACC	GACCGTTACA	CCTGGTTTTT	GCTAAGGACA	CATTCAATAC	AAGAACTAAA	60
AGTGGGAAAC	TGGGGCCTTT	GCAGAAAACA	ATGCAGTTTT	TAAGATTTCT	TGCCATCCTT	120
ATTTTCTCTG	CTAAACATTT	TATCAAGCAT	TGCAAAGGTG	AAACTTGCAT	GGGACTGAAC	180
TGTAATGACC	CAAGGTTATT	GGAGGCAATT	AAGAGCAACA	CAATCAATCA	GCTCTTGCAT	240
GATACAATTA	ATGCCACCCA	TGGAAAGAGT	CCACCAAAAT	CCACTAAAAC	CTTGCCCTTC	300
TTGGGTATCA	CAGACAGTAA	GAAATTGAAT	AGAAAATGCT	GTCAGAATGG	AGGCACTTGT	360
TTCTTGGGGA	CCTTTTGCAT	CTGCCCTAAG	CAATTTACTG	GTCGGCACTG	TGAACATGAA	420
AGGAGGCCAG	CAAGCTGCTC	CGGTGTTCCC	CATGGAGACT	GGATCCGTCA	GGGCTGCTTG	480
CTGTGTAGAT	GTGTGTCTGG	TGTCCTACAC	TGCTTCAAGC	CCGAGTCTGA	GGACTGTGAT	540
GTTGTGCATG	AAAAAAACAT	GAGATCGGGG	GTCCCGAGAA	TGCAGCTCAG	CTTAATCATC	600
TATTGCTTCC	TTACTGCAAA	CTTGTTTTAC	CACATAGTTT	GGCATCTGAA	TATTGGACTT	660
TAACAGAGTA	ACTTGAGTCT	GCCAGTCAGG	TTCAGATTGC	AGACGTCTGT	GTCTACACTG	720
CACTTTCAAT	TTGTGAACCC	ATTTTGCCAG	GATTATGCTT	GAAGTATATG	GCTATCTTCC	780
ACCCCTGGAA	TCCTGGAAAA	TATGCAGAAA	CTATACAATG	CCTTATTTCT	ATTGGTTGTT	840
TCATAAAATA	ACTTTTTTA	TAGGATGATG	TGTATAGTGG	CCAGAATGGG	TTTACAGTAC	900
TTCCAAGCAC	TGGCGTTGGT	TCAAAATAGC	TACTGGGTTC	TTGCTCTTTG	CTGCATGTTG	960
AGATCAGGAA	GCTAGTCTTA	TACTTACCCA	GTGCATTCTG	TATATATGTA	ATTTTTTAA	1020
ACTTATTAGA	CACGTTGTAC	ATTAACAGCA	TCCTTCACAA	ACTTTTATTT	TTTTTTAATT	1080
TTTTTATTAA	TTGACAAAGA	GAACAAAGTA	TCTAGGAACA	TTTTACAAAT	ATTGTCCTAC	1140
TACATTGCAT	GTTGTGGTTC	TTGTTTGTAT	GTTTGTCCTG	ATCTTCTACA	ATGTATCCCT	1200
AGCCATAAAA	CGATTTTGTG	AGTGTGTGTG	TGTGACTGCA	TCCCATTTTA	TTCATTATGC	1260
AAACACTTTG	CAAATGATTG	TGCAGCAATG	TAAGTGCTAG	CCTGTGGTCA	ACAGTGCTGA	_ 1320
ATGTAAATCT	TGGAGCGGTG	ATATCAGCAT	GCTTATGGAG	GCTCAATAAC	CTTGGTCTTG	1380
CCCCTTTAAA	TTCTATTTTT	CTACGGGCAA	GTAAATCTAA	ACTGGTAAAG	TACCTTCTTT	1440
TAAGGAAATG	AATCACTGAA	TGTTATAATT	CCAGTTTCAG	GCCACAGACA	ATTAATGACA	1500
GCTCAGGGAA	TAATACAATT	GCCCATGTTT	GATGCACCTA	ATGTACTGTA	TGTATTACAG	1560
GGTGTCTGCT	TGATGTTTGC	AATGAAGACA	TTAAATACTG	TACCTAAAAG	AAAAAAAA	1620
AAAAAAAA	AAA			,		1633

Figure 6

Title: Isolated FGF Receptor Inventors: Marc W. Kirschner

CLP
MQFLRFLAILIFSAKHFIKHCKGETCMGLNCNDPRLLEA
IKSNTINQLLHDTINATHGKSPPKSTKTLPFLGITDSKK
LNRKCCQNGGTCFLGTFCICPKQFTGRHCEHERRPASCS
GVPHGDWIRQGCLLCRCVSGVLHCFKPESEDCDVVHEKN
MRSGVPRMQLSLIIYCFLTANLFYHIVWHLNIGL

Figure 7

Docket No.:

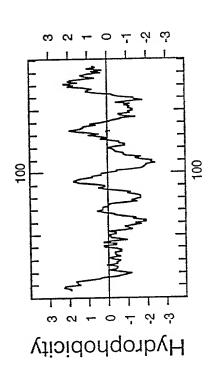
0725.1039-009

mouse cripto Xenopus CLP

KPESEDCDVVHEKNMRSGVPRMQLSLIIYCFLTANLFYHIVWHLNIGL PQTFLPGCDGHVMDQDLKASRTPCQTPSVTTTFML

Title: Inventors: Isolated FGF Receptor Marc W. Kirschner

Figure 8



MQFLRFLAILIFSAKHFIKHCKGETCMGLNCNDPRLLEAIKSNTINQLLHDTINATHGKSPP MGYFSSSVVLLVAISSAFEFGPVAGRDLAIRDNSIWDQKEPAVRD

KSTKTLPFLGITDSKKLNRKCCQNGGTCFLGTFCICPKQFTGRHCEHERRPASCSGVPHGDWIRQGCLLCRCVSGVLHCF RSFQFVPSVGIQNSKSLNKTCCLNGGTCILGSFCACPPSFYGRNCEHDVRKEHCGSILHGTWLPKKCSLCRCWHGQLHCL \*\*\* \*\* \* \*\* \*\* \*\* \*\*\*\*

Isolated FGF Receptor Marc W. Kirschner

Title:
Inventors:

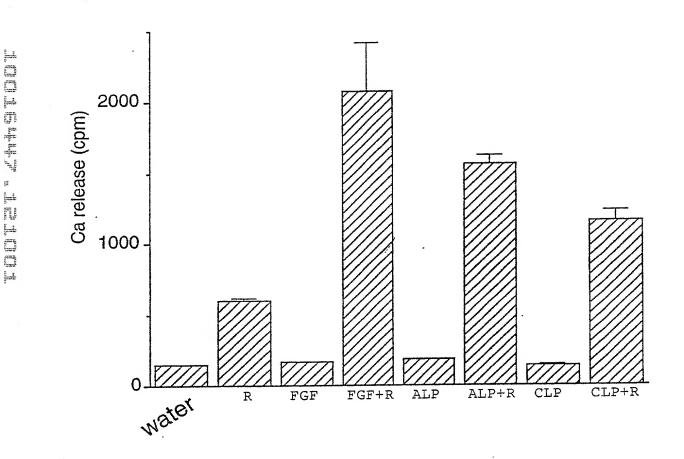


Figure 9

human KaposiFGF XeFGF human FGF6 XeFGF human 

0725.1039-009

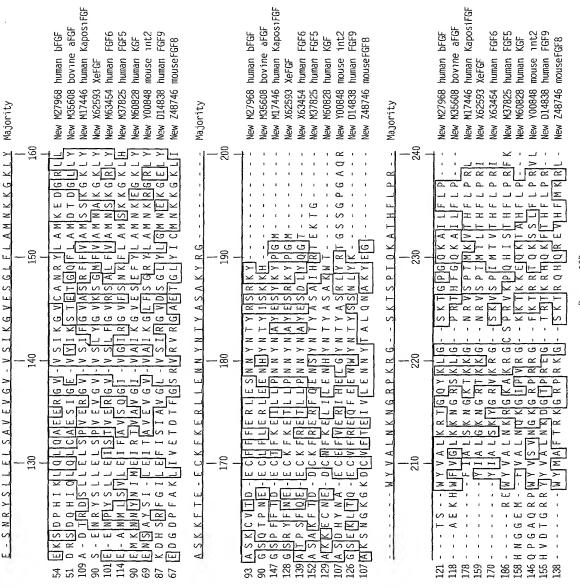
Isolated FGF Receptor Marc W. Kirschner

Docket No.:

Inventors:

Title:

Docket No.: 0725.1039-009 Title: Isolated FGF Receptor Inventors: Marc W. Kirschner



0725.1039-009 Docket No.: Isolated FGF Receptor Title: Marc W. Kirschner Inventors:

(CLP)  MQFLRFLAILIFSAKHFIKHCKGETCMGLNCNDPRLLEAI  KSNTINQLLHDTINATHGKSPPKSTKTLPFLGITDSKKLN  RKCCQNGGTCFLGTFCICPKQFTGRHCEHERRPASCSGVP  HGDWIRQGCLLCRCVSGVLHCFKPESEDCDVVHEKNMRSG  VPRMQLSLIIYCFLTANLFYHIVWHLNIGL	40 80 120 160 190
(ALP) MLDIMVAVLSSLLTICIILSFSLPSDTQNINAFMEKHIVK EGAETNCNQTIKDRNIRFKNNCKFRNTFIHDTNGKKVKEM CAGIVKSTFVISKELLPLTDCLLMGRTARPPNCAYNQTRT TGVINITCENNYPVHFAGYKSSFCASYSPCALIVITVFLL SQLLLPAMR	40 80 120 160 169

arrow; predicted cleavage sites N: predicted N-glycosilation sites

Hydrophobic regions at C-terminus are underlined

Figure 11

Title:

Inventors:

Isolated FGF Receptor Marc W. Kirschner

FRL-1 MOFLRFLAILIFSAKHFIKHCKGETCMGLNCNDPRLLEA IKSNTINQLLHDTINATHGKSPPKSTKTLPFLGITDSKK LNRKCCQNGGTCFLGTFCICPKQFTGRHCEHERRPASCS GVPHGDWIRQGCLLCRCVSGVLHCFKPESEDCDVVHEKN MRSGVPRMQLSLIIYCFLTANLFYHIVWHLNIGL \*: amino acid residues highly/conserved among EGF repeats

Figure 12